

OP_A004**THE NAFLD THREAT IN HYPOTHYROID PATIENTS: A CROSS-SECTIONAL STUDY**

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Mohammad Saquib Alam

Aligarh Muslim University, Uttar Pradesh, India

INTRODUCTION

Non-alcoholic fatty liver disease (NAFLD) is a rapidly progressing condition with a concerning rise in prevalence. Studies suggest a potential association between NAFLD and hypothyroidism, another prevalent condition. However, in the Indian context, not much has been reported on this association. This study aimed to determine the prevalence of NAFLD in a cohort diagnosed with hypothyroidism at our hospital.

METHODOLOGY

We conducted a hospital-based, cross-sectional observational study. Patients with confirmed hypothyroidism based on established criteria (elevated TSH with normal or low T4) were recruited. Standardized diagnostic tools for NAFLD were employed, including liver ultrasound to assess the grade of fatty infiltration and Fibro Scan® to measure liver stiffness. Descriptive statistics were used to report the prevalence of NAFLD within the hypothyroid population.

RESULT

A total of 120 patients with hypothyroidism participated (87.2% female, ages 15-66 years, majority 21-50 years). Over half (51.3%) had overt hypothyroidism. We observed a prevalence of NAFLD of 46.7% (31.6% Grade 1 fatty liver, 15% Grade 2) on ultrasound. Notably, the prevalence of NAFLD was higher in overt hypothyroidism (43.5% Grade 0, 32.3% Grade 1, 24.2% Grade 2) compared to subclinical hypothyroidism (62% Grade 0, 31% Grade 1, 7% Grade 2). Fibro Scan® revealed 65% with no fibrosis (F0-F1), 18.3% with F2 fibrosis, and 16.7% with F3 fibrosis. Statistical analysis showed a positive correlation between TSH levels and both NAFLD severity on ultrasound and liver fibrosis on Fibro Scan®.

CONCLUSION

This study investigated the co-occurrence and potential association of NAFLD in patients with hypothyroidism. We found a high prevalence of NAFLD (46.7%) and a positive correlation between TSH levels and NAFLD severity/fibrosis. These findings suggest a potential link between hypothyroidism and NAFLD. Further research is warranted to explore the underlying mechanisms and potential therapeutic implications.